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EXAMINER	
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ART UNIT	PAPER NUMBER
3722	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/065,021	KURZ ET AL.	
	Examiner	Art Unit	
	Erica E. Cadugan	3722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 June 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *18-20* is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claim 17 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Specifically, claim 17 sets forth a method including the steps of "**continuing** workpiece machining...by the second spindle and **tool changing at the second spindle into and from the second tool magazine... during stocking of the first tool magazine**; and **continuing** workpiece machining... by the first spindle and **tool changing at the first spindle into and from the first tool magazine... during stocking of the second tool magazine**". These steps do not appear to have support in the specification as originally filed.

On page 6 of Applicant's response, Applicant indicates that support for these limitations could be found in paragraphs 0017 and 0018. Additionally, in the previous response, Applicant indicated that support for these limitations could be found in paragraph 0011. However, this is not persuasive. Paragraph 0011 indicates that the first spindle performs ***machining*** (not tool changing) during stocking of the second magazine, and that the second spindle performs machining during stocking of the first magazine. There is nothing in paragraph 0011 about tool changing.

Re paragraph 0017, there is nothing in paragraph 0017 about "stocking".

Additionally, at best, paragraph 0018 teaches/implies that tool exchange for one spindle occurs while machining occurs with the other spindle (during the "main machining time"). There is nothing in paragraph 0018 about "stocking".

Accordingly, there is still no teaching in the specification as originally filed about changing a tool for one spindle while stocking the other magazine.

Claim Rejections - 35 USC § 103

3. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP-6-304835 ('835) in view of any one of U.S. Pat. No.'s 6,325,195 to Doherty, 5,897,430 to Haller, 4,597,698 to Liebetrau, or U.S. Design Patent No. D265,912 to Frenkel, for example.

'835 teaches a "machine tool" having a base 12 (see Figures 1-2). The "machine tool" includes spindles 48 and 48a (see Figure 2) that are independently moveable in at least one axis, such as in the vertical direction by virtue of their separate vertical drives (including the ball screw drives, one of which that has a ball screw labeled "46(44) in Figure 2), and such as in the direction labeled as "Z" in Figures 1 and 3, by virtue of the separate ball screw drives including ball screws 42 as shown in Figure 2, for example. Each spindle has its own "magazine" 64, 64a (see Figures 1-2, for example).

Note that "stocking" of the tool magazines 64, 64a is carried out by adjacent tool swap devices 60 (see Figures 1-2, for example and also paragraph 0023), and that such "stocking" does not affect the machining operation carried out by the spindles (see Figures 1-2), particularly noting that a further exchange device 62, 62a is used to exchange tools between the tool magazines 64, 64a and their respective spindles 48, 48a (Figure 2, for example).

Specifically regarding claim 3, it is noted that the magazines 64, 64a must be indexed or "moved" into the appropriate position to be stocked, i.e., indexed to a position where the desired tools can be removed therefrom or attached thereto, as appropriate (see Figures 1-2).

Re claims 1 and 3, in the alternative, it appears implicit via the discussion of "prompt" tool change and "processing effectiveness" in paragraphs 0002-0006, for example, and the provision of the independent magazines 64, 64a, the independent stockers 60, and the independently moveable spindles 48, 48a, as described above, that the second spindle continues its machining, as desired, during stocking of the other magazine with one of the tool swap devices, and vice versa. However, '835 does not explicitly teach such.

Additionally, re claims 1 and 9, '835 lacks a protective cover, and therefore does not teach that the "first" and "second" spindles are "located within a protective cover" and that machining occurs "inside" such protective cover.

Re claims 2 and 10, while teaches utilizing separate tool swap devices 60 to stock the tool magazines 64 and 64a as described above, '835 is silent as to how many operators are used to operate these tool swap devices.

Re claims 4-8 and 12-16, for example, '835 is silent about the specifics of the machining operations carried out, though it is noted that '835 teaches (see paragraphs 0007 and 0038, for example), and it would also be readily apparent from the provision of the tool exchanging system taught by '835 as well as the ability of the spindles to be moved independently, that the spindles can be utilized to perform a wide variety of machining operations in whatever order (i.e., simultaneous, alternating, etc.) as was desired by an end user. (Thus re claim 6, for example, it

would depend on the operations desired to be performed by the end user as to whether the tools in the magazines were identical or not.).

Re claim 9, while '835 does explicitly teach the provision of the plural tool swap devices to stock the tool magazines as described above that would enable such an occurrence, '835 does not explicitly set forth that the stocking of the tool magazines 64 and 64a occurs "simultaneously" as claimed.

Re claim 11, it is noted that the magazines 64, 64a must be indexed or "moved" into the appropriate position to be stocked, i.e., indexed to a position where the desired tools can be removed therefrom or attached thereto, as appropriate (see Figures 1-2).

However, re claims 2 and 10, particularly absent any alleged criticality it would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized as many machine tool operators as was desired or expedient to an end user, and particularly re claim 10, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. St. Regis Paper Co. v. Bemis Co., 193 USPQ 8.

Note that it completely depends on the design choice of the workpiece(s) produced and the operations that an end user desires the device to perform (noting that '835 explicitly teaches that a wide variety of different operations can be performed, and thus teaches the flexibility of the machine, see paragraphs 0007 and 0038-0040, for example) as to whether the magazines are stocked at the same time, whether the spindles are operated simultaneously or alternatingly, or whether or not one spindle happens to be operating at the time that the other magazine is being stocked, or whether a tool change on one spindle happens to occur while the other magazine is

being stocked. Note also that so long as the stocking of the magazine(s) occurs during the machining operation(s) as claimed (i.e., does not interfere with the machining operation(s)), it does not appear to matter to the present invention whether the machining is identical or different (see paragraphs 0004-0006 and 0026-0029 of the present specification).

Thus, at the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to have conventionally performed parallel identical machining on separate workpieces with the separate spindles, or to have conventionally used the separate spindles to perform alternately on one workpiece because Applicant has not disclosed that performing such machining provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected '835's invention of stocking the magazines during machining to perform equally well whether or not the machining is the same or different, whether or not the tools stocked in the different magazines are the same or different, or whether or not one spindle is having its tool exchanged during stocking of another spindle, or whether or not one spindle happens to be in the process of machining while the magazine of the opposite tool spindle is being "stocked" because the salient function of the stocking occurring during the machining is unchanged in the modification. Therefore, it would have been an obvious matter of design choice to have modified the teachings of '835 to have obtained the invention as specified in the claims re the immediately aforedescribed features.

Re the protective cover, each of Doherty, Haller, Liebetrau, and Frenkel teach protective cover devices, within which machinery operates (see Figure 1 of Doherty, Figures 1-4 and

abstract of Haller, Figure 1 and abstract of Liebetrau, and Figures 7-8 and the claim of Frenkel, for example.

Note that Doherty explicitly teaches that the protective cover reduces the chance of injuries to operators by their being caught within the operative parts of the machinery or struck by elements emanating from such machinery (col. 1, lines 19-54, for example), Haller explicitly teaches that their protective cover is economical (col. 5, lines 19-24) and that it has additional safety features that cause the machine tool to stop operation when the protective closure is opened (col. 4, lines 25-43, for example), Liebetrau explicitly teaches that the protective enclosure contains and collects cutting fluids and solid metallic chips and the like spewed about during the course of operation of automatic metal forming machines (see col. 1, lines 5-10, for example, which, in addition to protecting an operator from flying debris, would thus facilitate a cleaner working environment.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided a protective cover as taught by any of Doherty, Haller, Liebetrau, or Frenkel, to surround and protect the machinery taught by '835, for the purpose of protecting an operator of '835's device from injury (as explicitly taught by Doherty and Haller, and which would also be a known benefit of such protective covers) as well as for facilitate a cleaner working environment, as would be readily understood by one having ordinary skill in the art.

Allowable Subject Matter

4. Claims 18-20 are allowed.

Response to Arguments

5. Many of Applicant's arguments filed June 12, 2006 have been rendered moot by the new grounds of rejection set forth above (the protective cover issue). However, Examiner will address any arguments to the extent to which they still pertain.

Re Applicant's assertions with respect to the new matter rejection of claim 17, attention is directed to the above rejection of claim 17 based on 35 USC 112, first paragraph.

Also, Applicant has asserted that:

> Personnel stocking the stocker is far removed from the machine spindles and not at risk of injury caused e.g., by cuttings being produced by the tools mounted on the spindles. Therefore, there is no motivation to use a protective cover on the spindles.

However, this is not persuasive.

Firstly, whether or not the person stocking the stocker is located in the vicinity of the stocker for the entire time they operate the machine, we do not know that this is a far enough distance away from the spindles to be completely safe from flying chips, etc. Counsel's statements regarding the "risk of injury caused e.g., by cutting being produced by the tools mounted on the spindles" are not factually supported and appear to be speculative in nature. Note that the arguments of counsel cannot take the place of evidence in the record. *In re Schulze*, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965). See also MPEP section 716.01(c), for example.

Secondly, even if Applicant's assertion is true, i.e., that a person in the vicinity of the stocker is safe from flying chips, it is noted that there is nothing that requires an operator necessarily to stay in the vicinity of the stocker during the entire time of operation of the

spindles, and thus, for any time that the operator did venture into the vicinity of the machining spindles, they would be at risk.

Thirdly, it is noted that, again, even if Applicant's assertion is true, there are other reasons that would motivate one having ordinary skill in the art to supply a protective cover around the device, such as to protect an operator from moving parts of the machinery (note that the Doherty reference, for example, explicitly teaches this advantage of protective covers), noting that the stocker does have moving parts, or such as to facilitate a cleaner work environment by preventing the chips or any coolant from flying far from the machine, for example.

Re claims 2 and 10, Applicant has asserted the following:

> Claims 2 and 10 (a machine operator stocks the tool magazine) is not obvious in view of JP-6-304835. The "magazine 64" is loaded with tools by the delivery system 68 that receives tools from the tool stocker 66. The stocker 66 remote from the "tool magazine 64" is stocked by a machine operator. Given the complex interacting mechanisms of the device according to JP-6-304835 it is not obvious to eliminate half of the apparatus in order to stock the "tool magazine 64" by hand.

However, this is not persuasive. What claim 2 actually says is that "wherein stocking of the first and second tool magazines is carried out by a single machine operator", and what claim 10 actually says is that "wherein stocking of the first tool magazine is carried out by a first machine operator and stocking of the second tool magazine is carried out by a second machine operator".

Examiner will address Applicant's statements as best understood, noting that they don't appear to apply to any current claim language, nor do they appear to apply to the present (or previous) rejection of claims 2 and 10 based on '835. Examiner did not propose to eliminate half

the apparatus of '835 in the rejection of claims 2 and 10 (see both the previous and present rejections of claims 2 and 10), nor do the present claims call for any stocking of any magazine "by hand" as asserted. An operator who turns on the power to make the stocker 66 stock the magazine 64 performs the "stocking operation" and meets the claim language of "stocking" being "carried out by a machine operator".

Further note that even if language was provided to indicate that the stocking was performed "by hand" by the operator, Examiner notes that it is well-established that one having ordinary skill in the art would understand how to perform an automated activity by hand.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erica E. Cadugan whose telephone number is (571) 272-4474. The examiner can normally be reached on M-F, 6:30 a.m. to 4:00 p.m., alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Monica S. Carter can be reached on (571) 272-4475. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Erica E Cadugan
Primary Examiner
Art Unit 3722

eec
August 15, 2006